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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,759	10/11/2001	Henry M. Hund JR.	0554300/2006	9472

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EXAMINER

FOX, CHARLES A

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,759

Applicant(s)

HUND ET AL.

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-17 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

Applicant's election without traverse of Invention I in Paper No. 6 is acknowledged.

Specification

The abstract of the disclosure is objected to because it is more than 150 words. Applicant must rewrite the abstract in a form having 150 words or less. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breckenridge in view of Pellenec et al. In regards to claim 1 Breckenridge US 4,401,407 teaches an apparatus for lifting a container so as to empty its contents into a collection bin, said apparatus comprising:

a container grab assembly (32) which includes a pair of opposed grabbing arms in a spaced relationship that are operable by a fluid operated actuating system (110) to grab and release a container;

an articulated arm (30) that is operable by a fluid operated actuator (36) through a cycle that includes retracted, extended, lifting and dumping positions.

Breckenridge does not teach the lifting arm as having multiple articulated joints.

Pellenec et al. US 4,975,016 teaches an articulated lifting arm comprising :

a base link (10);

an upper link (4) having a first and second end;

a reach link (5b) having a first end pivotally attached to the base link, and a second end pivotally attached to the upper link;

a lift arm (5a) having a first and second end, one of said end connected to a grab assembly (20);

wherein during movement of said arm the base link and the upper link remain substantially parallel with each other;

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Brekenridge with an articulated arm as taught by Pellenec et al. in order to allow the device to operate autonomously thereby allowing the operator of the device to pick up containers automatically.

In regards to claim 2 Brekenridge further teaches that the apparatus is mounted on a collection vehicle near a collection bin.

In regards to claim 3 Brekenridge also teaches the actuation members of the apparatus comprise double acting hydraulic cylinders.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brekenridge in view of Pellenec et al. as applied to claim 1 above, and further in view of Pickrell. In regards to claims 4 and 5 Brekenridge in view of Pellenec et al. teach the limitations of claim 1 as above they do not teach a gear assembly being used on the

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gripping device. Pickrell US 5,026,104 teaches a gripping assembly for lifting a container for emptying, said gripper comprising:

- a side support arm (29), having a first and second end where said first end is attached to a lift arm;

- a gear box that is mounted on said second end of said support arm, said gear box including a left gear (38) and a right gear (35);

- a right shaft (33) on which right gear is mounted;

- a left shaft (34) on which left gear is mounted;

- a drive link (40) with a first and a second end, where said first end is mounted on said right shaft;

- a left grabbing arm (52) mounted on said left shaft;

- a right grabbing arm mounted on said right shaft;

- a grabber cylinder (43) having a base end and a rod end, one of said ends being mounted on the side support arm and the other being attached to said second end of said drive link;

wherein said relationship between said gears, drive link and grabber cylinder are such that retraction of the cylinder rod will move the grabbing arms from an open position to a grab position.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Brekenridge in view of Pellenec et al. with a grabber as taught by Pickrell in order to be able to pick up containers of various sizes

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and shapes without having to adjust the gripping mechanism to suit the container being picked up.

In regards to claim 6 it would have been obvious to one of ordinary skill in the art, at the time of invention to enclose the gear mechanism of Brekenridge as modified by Pickrell as it is a well known expedient to place gears in a closed box to protect them from the elements as well as providing a means to easily lubricate the gears.

Allowable Subject Matter

Claims 7-17 are allowed. Independent claims 7 and 13 both have structural limitations dealing with the placement of the reach and lift cylinders that are not taught or suggested in the closest prior art of Branconi US 4,077,140. Claims 8-12 and 14-17 which depend from one of claims 7 or 13 are also in condition for allowance.

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is: Usagida 1976, Branconi 1978, Deacon 1983, Robertson 1996, Donaldson et al. 1997 and Christenson 1998.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

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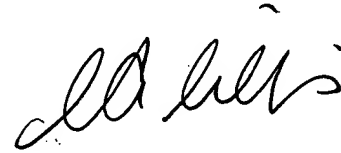
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

CAF

June 28, 2003

CAF 6-28-03



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
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